

Spaton: The fundamental particle of everything

Definition of Terms

A point to keep in mind is that in this theory, we'll have to carefully define every term we've encountered. Cause this theory is proposing a completely different view of world compare to those we've used to. So before we start this theory, here's a list of definition of terms.

- Space: Space here means mathematical space, something like a function $f(x,y,z)$, or a matrix. A real existed space are referred as virtuality.
- Field: A field is a 3-D or 4-D space which every point has it's corresponding value. A field could either be discrete or continuous.
 - Constant Field: constant field is a field that doesn't change over ticks.
- Module: A module is an s-N-E-x system (see more at s-N-E-x system)
 - Basic Module: is a module that's connect directly to constant field.
- Tick: tick is a universal time system in the theory, denoted as capitalized T. Ticks are universal (for the sake of easiness for calculation), while time doesn't necessarily be.
- Virtuality: is the space we normally referred as space. The real existing space. But since in this theory there's space in Kepunkt and space that we experienced, we differed them by defining different terms.
- Kepunkt: a gift given from the invention of 0 in mathematics.
- Dimension: refers to all unit, including spatial dimensions, temperature, velocity, spin, etc.
- Particles: refers to normal particles in particle physics, but not graviton nor spaton.
- Disoriented Virtuality: Means that when you attempt to observe virtuality in a perspective you're fundamentally forbidden (like you can't exactly measure quantum superposition), and it leads you to some nonsense result.

Ultimate Unity Theory

“If we can’t find more than one thing that could exist independently from the others, then the universe must be able to unified into one thing.”

So let’s try to find if any two thing is possible to exist independently from the others. From our try, it is impossible, or at least we we continue to speak the language we’re speaking. Most binary division we use are that whether a thing fits a statement or **doesn’t** fit a statement. But with these binary division, those two groups aren’t independently existing from each other. Like you can’t define two group of people, one is under 18 and the other is **not** under 18. Cause the group “**not** under 18” is defined completely based on the group (or the statement) “under 18”. That concludes that any two group that uses negation of the other group aren’t independent existing from each other.

Also, we can’t define two group that are in the same dimension. For example, red and blue. Cause you could definitely find a relationship between them (hence why they’re on the same dimension). Which yields to the only possibility, making two group that are completely unrelated. But it is also impossible to define two group that are completely unrelated. The current fundamental theories has been unified into quantum mechanics (which includes QFT which produces all particles) and general relativity. Yet we know that quantum mechanics must be built upon space-time. Which I think it’s confident enough to conclude that we aren’t, at least till now, able to create two or more independent existing group of things. Hence everything must be able to unify into one single group or thing.

s-N-E-x system (module)

With the ultimate unity theory, we could say that every physics law should be able to break down into parts, or what we called modules. A module consists 4 variables:

1. s , technically defined as the value that a thing would observe itself as¹. Normally acting as the input part of a module, taking in field.
2. N , E , the perspective part of a module. Used to reform s to x .
3. x , technically defined as the value that an observer that isn't the thing itself would observed². Normally acting as the output part of a module, outputting a field.

And those 4 variables must always satisfies following equation:

$$\frac{s - N}{E - N} = x, \text{ when } B > B_{min} \quad (\text{Equation 1})$$

Also there's what we called proposed amount of existence, denoted as B , which we think

$$B \propto |E - N| \quad (\text{Equation 2})$$

And since we know s is taking field as input and x is giving field as output, we could what we called *connect* these modules, where one module takes the other module's output as input.

Kepunkt

Kepunkt (previously named information point), denoted as \mathcal{K} ³, by definition is $\mathcal{K}=1/0$. By definition, Kepunkt is the only real fundamental thing in the universe. It's the only thing that just exists, with no origin nor ending. The Ultimate origin of everything, a point that doesn't have unit nor does it belongs to any dimension.

¹ Which s literally mean the pronoun *sich* in German.

² s-N-E-x module are originally designed to convert perspective between observers, hence why they're defined as so. But later with the Ultimate Unity Theory, it has been taken as the fundamental building block of a physical system.

³ Japanese Katakana character, ke.

Introduction of Spaton [spay-ton]

“The space you and I experienced (virtuality),
is as real as particles, stuffs, you and I.
Yet also as virtual as they are.”

So the creation of the universe is by following order (summarizing lots of details as suppose you're read them before in previous articles):

1. There's nothing, no space no particles, only the Kepunkt.
2. By self-interaction of Kepunkt, creates consciousness, or what commonly referred as modules.
3. Modules with the Kepunkt's constant field creates all dimensions and existence.

With the Ultimate Unity Theory, we suppose that anything expect Kepunkt, is virtual (or unreal). Everything is created from Kepunkt, and they don't technically exists, but created from a series of consciousness (modules). Which means that space are as real (or as virtual) as particles, you and I.

With this suppose, we could suppose that the space is built just the same way as us and all the other elements are built. Elements are built from atoms and electrons, and atoms are built from quarks. So we suppose space is also built from something, which we called them spaton⁴.

Spaton, unlike other particles which are quantized, are semi-quantized. By semi-quantization, we mean that spaton also have those minimum energy restriction (which we referred as Minimum Required Existence for Existing, or MREE), but unlike other quantum fields which are discrete, they are technically continuous⁵.

Minimum Required Existence for Existing (MREE)

Before pushing the idea of spaton any further, let's clear one of the fundamental idea of our theory – existence – first. By definition, anything that's virtually created (which is everything expect Kepunkt) requires being proposed by minimum required amount of existence in order for them to exists in virtuality. And there are two types of existence, existence through virtuality and existence through Kepunkt. Existence is a topological idea, it is defined to be the connectivity of particles.

Existence through virtuality is literally connectivity between particles in a certain region of virtuality (similar idea of locality). The strength of existence through virtuality is determine by the distance of two particles, or more precisely for existence to propagate through spaton consumes the strength of existence.

Existence through Kepunkt is a more complicated thing. Consider everything is a continuous. By defining the space is continuous, it means that you can't cut it the space in two by applying continuous transformation...expect when things involves Kepunkt. Any two particles that enter Kepunkt simultaneously, it'll create a connectivity through Kepunkt.

Connection created by Kepunkt

Technically, we couldn't prove that connections are created when two particles are at Kepunkt at the same time, due to the fact that we're using a part of math that doesn't originally supposed to be there (the division by 0). But if we put it through some thought experiment, it clearly signals that it

⁴ Pronounced as spay-ton. The *spa-* from spatial, and *-ton* from graviton.

⁵ Supposing system are all continuous is considered an axiom of our theory, which is yes sadly, unproved now.

must have done it.

Consider splitting a blob of slime into two, if the split you're applying is also a continuous transformation function, it is impossible to split it into two. You'll always find an infinitesimal thin connection between two blobs that you're trying to split apart (since it's...continuous). But apparently we doesn't find those connection when we cut something in half. So unless those connection do exists just they're so thin that we can't observe, the connection must go through Kepunkt, as it's the only option left. So you could take Kepunkt as the only scissor in this continuous virtuality, as it's the only thing that could make the virtuality looks not so continuous.

Now we know how connectivity through Kepunkt is made, what's their properties? We suggest that the strength of existence through Kepunkt will decay through time exponentially. Why? Because as we stated "The Kepunkt is the only real existence, while other is virtually created", and anything virtually created requires existence to exists. Even for the existence carrier itself requires existence to exists (just comparatively small). And since, there's no virtuality between any virtuality and Kepunkt, there's nothing to sustain the existence of the existence carriers, which makes them disappear quickly.

Or for the sake of simplicity, just think of that connection through Kepunkt isn't part of our virtuality (which is the part that we considered as stable), so it's unstable which decays quickly.

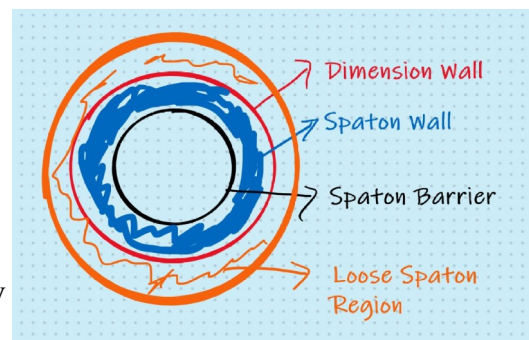
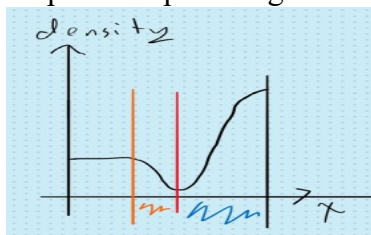
Semi-quantization

Now we've got the idea of MREE, let's talk about what exactly is semi-quantization? We've said Kepunkt is the only scissor in our universe, so to make virtuality discrete-like, we must take use of Kepunkt and MREE. When a particle's received amount of Existence (denoted as B) is lesser than it's MREE (denoted as B_{min}), the particle will remain inside Kepunkt (which mean it is in-observable in virtuality). The output x only makes sense when $B \geq B_{min}$ ⁶. So to observer in virtuality (us), the spaton looks like it is quantized, cause you must give enough MREE (equivalent to quanta) in order for a spaton (a chunk of space) to exists. Yet technically the virtuality is still continuous, just some part is in-observable.

Creation of Particles

We've said previously, spaton creates particles, but how? By compressing enough spaton into a region of virtual-virtuality⁷ (something like curving space-time). Spaton in the loose spaton region are pushed into spaton wall, creating a highly compressed spaton region. Where density is plotted below:

Where line color are corresponding sections.



- 6 Carefully notice that even when $B \geq B_{min}$, x makes sense, the virtuality is still very disoriented when $|E-N|$ is relatively small. So make sure when comparing whether or not the theory makes sense, you gotta preform correct transformation to ensure that the virtuality isn't disoriented.
- 7 We've called it virtual-virtuality cause you can't compress spaton into a region of virtuality, cause spaton made virtuality. So like the idea of bending space-time, we have to plot it on an arbitrary static plot, so we know what compressing spaton mean. Like how we plot those [famous curvature of 2-D space-time](#).

If we let velocity instead of distance per time, but as amount of spaton per time, we could get the same result of curved space-time. As the orange region is less dense, objects will travel faster in that region, and the closer to the dimension wall, the faster the object will travel. Then the object will arrive at the spaton wall (which our bad for drawing in wrong proportion, spaton wall should be very compressed hence very thin), where density rises quickly slowing the object down. Until to the spaton barrier which is by definition spaton are so densely packed that even photons can't penetrate (corresponding to Pauli Exclusion Principle⁸).

But now we only explained the gravitational effect, but where's the particle. Well, we'll have to discuss what makes particles different from space-time. We think what makes them different is that particles have some additional dimensions, like spin, mass, etc. So creating all those dimensions that a particle suppose to have should make us particles.

To create extra dimensions, all you have to do is to make spaton so loose that B is lower than B_{min} . Now when the spaton are stretched so much that its' received existence is lower than MREE, it'll have to either just disappear (which apparently is impossible cause we haven't seen such event happened), or extra dimensions must formed providing extra source of existence. And that's how we make extra dimensions, and why particles generally have single property compared to other mixed stuff, because their inner parts (spaton), must stay close in other dimensions to ensure they have enough existence. So technically when we measured a particle's properties, we aren't measuring directly from the particle itself, but rather from the surrounding dimension wall. This explains why information entropy is proportion to surface area of an object (the [Bekenstein bound](#))⁹.

8 Although Pauli Exclusion Principle allows particle in same place as long as they have different quantum phase. But remember spaton not only forms space but forms all other dimensions (phase), so same thing happens in those phase space too. And for now we're supposing that those quantum phase doesn't exists.

9 <https://youtu.be/XxVIGAFX7vA?t=106>, How Much Information is in the Universe? | Space Time by PBS Space Time on YouTube at 1:46. (To save spaces, I'm not using endnote this time, but instead uses footnote.)

The issue of Photon

If you've payed enough attention, you'll spot a critical error in previous statements. We've stated that "we let velocity instead of distant per time, but as amount of spaton per time". So if light speed is a constant amount of spaton per time, then doesn't it mean photons will accelerate due to gravitational effect? Yes, you're right, if you only consider this statement. But this theory, as I would called it, is a giant puzzle that's built upon mathematical loopholes (Kepunkt) and many carefully constructed terminology. So what we've been working on are actually modules of *sich* physics. All those modules we've been working on are describing how things changes when an object observes itself. And I bet you've guessed what I'm playing here, technically there isn't a velocity of photon that can be observed by the photon itself, so our theory isn't contradicting any experimental evidence.

In fact, because there isn't any correct velocity that can be measured by photon itself, it means that if we connect the modules of *sich* physics to the modules of perspective transformation (something like Special Relativity's Lorentz Transformation), the speed of light will be constant. It's like how no matter what your s-N-E-x system is, as long as $N=E$, they're in Kepunkt. Because speed of light in a photon's perspective is undefined, passing through a perspective transformation will yields a fixed value. While other defined values will give different results when transforming to different perspectives.

Summary

You might argue that my whole theory is quibble, but I'll say it's a gift from mathematics. It's those weird stuffs in math (like 0 and infinite), that gives me the power of building such a theory. So unless you're able to build a new system of mathematics without these loopholes, I'll say that they've existed for a reason, and that's to be part of my theory.